

REMARKS

An Office Action mailed November 27, 2007 rejected claims 1-25, 44-46, 48-82 and 100-101. Claims 83-99 and 102-118 are objected to. The Final Office Action indicated that claims 83-99 and 102-118 include allowable subject matter.

Examiner Interview

Applicant thanks the Examiner for the courtesies extended during the telephonic interview with Karl Bizjak (inventor) and the undersigned on May 20, 2008. In the interview, the relevance of Kitani was discussed including a review of the claims. Applicant submits certain amendments in accordance with suggestions of the Examiner.

Claim Rejections

Regarding claim 1, Applicant asserts that Kitani does not teach an input detector for detecting a predetermined condition of an input signal and synchronizer logic responsive to the input detector. The pending Office Action alleges that the Kitani rectifier 13, in addition to serving as gain calculate logic, also functions as an input detector. In the interview, the Examiner proposed that the rectifier inherently detected the presence of a signal. However, Applicant pointed out that, even accepting *arguendo* this proposition, the alleged Kitani gain calculate logic does not, and can not, react to any change in presence condition of the input signal. If no signal was present, Kitani's gain calculate logic would ramp the Kitani gain to maximum. Thus, even if the rectifier could be said to teach detection of presence (proposed predetermined condition) Kitani's gain calculation is not responsive to the rectifier in relation to synchronizing the input signal with the gain signal. Therefore, the rejection of claim 1 is improper.

Nevertheless, for the purpose of advancing prosecution and mindful of the Examiner's suggestions provided in the Interview, Applicant has amended claim 1 to require that the predetermined condition of the input signal includes at least one of a zero crossing and a failure to have a zero crossing within a predetermined period. Kitani does not teach such predetermined condition. Nor does any other reference cited in this matter teach a synchronizer responsive to an input signal and an input detector that synchronizes the input signal and a gain signal.

Nevertheless, in the interest of expediting prosecution and mindful of the Examiner's suggestions in the Interview, Applicant has amended claim 1 to require that the predetermined

condition of the input signal includes at least one of a zero crossing and a failure to have a zero crossing within a predetermined period. Applicant has also amended claims 6 and 7. Claim 6 requires that the input signal and the gain signal are synchronized to a zero crossing of the input signal. Claim 7 requires that the input signal and the gain signal are synchronized upon detection of the failure to have a zero crossing within a predetermined period. Applicant submits that the amendments further distinguish the claimed inventions from the prior art.

Regarding claims 44, 50, 72 and 75, Applicant has amended the claims to require the claimed compander to provide an output by synchronizing a first signal and a gain signal based detection of a predetermined condition of the first signal, the predetermined condition including at least one of a zero crossing and a failure to have a zero crossing within a predetermined period. Note that independent claims 83 and 90 have been similarly amended. Thus, claims 44, 50 and 75 (as well as 83 and 90) are now allowable for at least the reasons provided above in relation to claim 1.

Regarding claims 2-5, 8-25, 45-46, 48-71, 74, 76-82 and 100-101 are allowable for at least the reasons the independent claims from which they depend are allowable.

Claim Objections And Other Amendments

Applicant addresses objections to claims 48-49, 83 and 90 presented in the Office Action. Claim 44 is amended to recite a plurality of power estimator signals, thereby eliminating the grounds for objecting to claims 48 and 49. Claims 83, 90 and 109 are amended to correct grammatical and/or typographical errors and to more clearly set forth certain aspects of the invention. Consequently, Applicant requests withdrawal of the claim objections. No new matter is introduced by the amendments.

Applicant has additionally amended certain claims to replace “synchronizer logic” with “synchronizer.” The amendment distinguishes the claimed inventions over the prior art. In particular, Kitani teaches synchronous circuits that coordinate events to operate a system in unison by use of a system or other clock signal. The present claims require synchronizing an input signal with a gain signal in relation to a zero crossing or a failure to have a zero crossing within a predetermined period of the input signal. The claims do not recite a clock signal.

CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition of allowance and a Notice to that effect is earnestly solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,
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